

**Notice of Allowability**

Application No.

10/820,948

Examiner

Kanji Patel

Applicant(s)

LI ET AL.

Art Unit

2624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/08/2004.
2. ☒ The allowed claim(s) is/are 1-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892) ✓
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), ✓  
Paper No./Mail Date 09/09/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance ✓
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Information Disclosure Statement submitted on 09/05/2005 has been considered by the examiner.

### ***Drawings***

2. Drawings filed 04/08/2004 have been considered by the examiner.

### ***Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowance:

**Claims 1-26** are allowed.

The present invention is directed for automatic linguistic indexing of images.

The prior art to Smith et al. (US 7,124,149 B2) disclose a method and apparatus for extracting a model vector representation from multimedia documents. A model vector provides a multidimensional representation of the confidence with which multimedia documents belong to a set of categories or with which a set of semantic concepts relate to the document. A model vector can be associated with multimedia documents to provide an index of its content or categorization and can be used for comparing, searching, classifying, or clustering multimedia documents. A model vector can be used for purposes of information discovery, personalizing multimedia content, and querying a multimedia information repository.

The closest prior art to Mojsilovic et al. (US 7,043,474 B2) disclose a method that includes deriving a plurality of semantic categories for representing

important semantic cues in images, where each semantic category is modeled through a combination of perceptual features that define the semantics of that category and that discriminate that category from other categories; for each semantic category, forming a set of perceptual features comprising required features and frequently occurring features; comparing an image to the semantic categories; and classifying the image as belonging to one of the semantic categories if all of the required features and at least one of the frequently occurring features for the semantic category are present in the image. A database contains image information, where the image information includes at least one of already classified images, network locations of already classified images and documents containing already classified images. The database is searched for images matching an input query, comprising e.g., an image, or text, or both.

However, neither Smith et al. nor Mojsilovic et al. teaches or suggest, among other things, "determining a set of statistical models from the database that are statistically similar to the plurality of feature vectors extracted from the image to be indexed and extracting a set of statistically significant index terms from the descriptions of the set of statistical models and using the set of statistically significant indexed terms to index the image".

These key features in combination with the other features of the claimed invention are neither taught nor suggested by (Smith et al. and Mojsilovic et al. ) the prior art on record.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Other prior art cited**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bradshaw (US 7,194,134 B2) discloses hierarchical, probabilistic, localized, semantic image classifier.

Milic-Frayling et al. (US Pub. No. 2004/0100510 A1) disclose a user interface for a resource search tool.

Luo (US 7,215,828 B2) discloses a method and system for determining image orientation.

### Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (571) 272-7454. The examiner can normally be reached on Monday to Thursday from 8 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lillis Eileen can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kanji Patel  
Art Unit 2624  
02/16/2008

  
**KANJIBHAI PATEL**  
**PRIMARY EXAMINER**